WHAT IS CLAIMED IS:

1. A method of performing an end point assay for protein disulfide isomerase (PDI) activity, the method comprising:

combining in a reaction mixture: a source of PDI activity; a substrate for PDI activity; and a reducing agent;

incubating said reaction for a period of time sufficient to reduce disulfide bonds present in said substrate;

stopping said reaction with hydrogen peroxide; and

measuring the optical density of said reaction mixture, wherein an increase in said optical density is indicative of the presence of PDI activity.

2. The method according to Claim 1, wherein said substrate is selected from the group consisting of insulin, HIV gp120, prolyl 4-hydroxylase and hypoxia-inducible factor.

3. The method according to Claim 2, wherein said substrate is present at a concentration of from 0.075 to 0.3 mM.

4. The method according to Claim 1, wherein said reducing agent is dithiothreitol (DTT).

5. The method according to Claim 4, wherein said DTT is present at a concentration of from 0.1 to 2 mM.

6. The method according to Claim 1, wherein said hydrogen peroxide is added to a final concentration of from 10 to 500 mM.

7. The method according to Claim 1, wherein said reaction mixture is incubated for a period of time from 15 to 60 minutes.

8. The method according to Claim 1, wherein said optical density is read at 650 nm.

9. The method according to Claim 1, wherein said reaction mix comprises less than 2% DMSO.

10. The method according to Claim 1, wherein a plurality of said assays are performed in parallel.

11. The method according to Claim 10, wherein said assays are performed in a microtiter plate.

12. The method according to Claim 1, wherein said source of PDI activity is a biological sample.

13. The method according to Claim 1, wherein a defined source of PDI activity is combined with said reaction mix, and said reaction mix further comprises a sample comprising a candidate PDI modulating agent.

14. The method according to Claim 13, wherein said PDI is provided at a concentration of 0.5 μg/ml to 100 μg/ml.